**Work Order ID 82336** *82336* 

*March-28-12 4:05:24 PM*

**Item ID:** D2858-2 **Accept** *N900040100* **Setup Start** *NS1*

**Revision ID:** **Stop** *NS2*

**Item Name:** Hinge Bracket

**Start Date:** 28/03/2012 **Start Qty:** 24.00 *24* **Cust Item ID:**

**Required Date:** 11/04/2012 **Req'd Qty:** 24.00 *24* **Customer:**

**Reference:**

**Approvals:** **Process Plan:** MLJ **Date:** 12/03/29 **Tooling:** **Date:** **Run Start** *NR1*

**QC:** **Date:** **SPC (Y/N):** **Date:** **Stop** *NR2*

| Draw Nbr | Revision Nbr |
|---|---|
| D2858 | Rev C |

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|---|---|---|---|---|---|---|---|---|---|
| 100 *100* Bandsaw Jeaspa Bandsaw | BAND SAW **Memo** Cut blanks 5.850 " Note: 1 Blank Makes 3 Parts | 0.00 0.00 | PO | 12/04/07 | | 24 | | | |
| 110 *110* HAAS 1 HAAS CNC vertical machine #1 | HAAS CNC VERTICAL MACHINING #1 **Memo** 1-Machine per folio FA941 FOLIO REV: AA DWG REV: C 2-Deburr any rough edges | 0.00 0.00 | SL 12/04/11 | | | 23 | 1 | PD → | |
| 120 *120* QC Quality Control | QC2- Inspect parts off machine FAI/FAIB **Memo** | 0.00 0.00 | SL 12/04/11 | | | 23 | | | |

**Dart Aerospace Ltd**

| W/O: | | 82336 WORK ORDER CHANGES | | | | | |
|---|---|---|---|---|---|---|---|
| **DATE** | **STEP** | **PROCEDURE CHANGE** | **By** | **Date** | **Qty** | **Approval** Chief Eng / Prod Mgr | **Approval** QC Inspector |
| | | | | | | | |
| | | | | | | | |

**Part No:** D2858-2 (98558-2) **PAR #:** ______ **Fault Category:** Machining **NCR:** (Yes) No **DQA:** [signature] **Date:** 12/04/23

**Resolution:** SCRAP **Disposition:** SCRAP **QA: N/C Closed:** ck **Date:** 12/4/23

| NCR: 12-1363 | | WORK ORDER NON-CONFORMANCE (NCR) 20.68 | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | **Corrective Action** Section B | | | | | |
| **DATE** | **STEP** | **Description of NC** Section A | **Initial** Chief Eng | **Action Description** Chief Eng | **Sign & Date** | **Verification** Section C | **Approval** Chief Eng | **Approval** QC Inspector |
| 12/04/11 | 110 | -1 part is scrap, machine fell in alarm and dropped in part while machining<br>R.C. machine malfunction | S 12/04/11 QS7042 | -scrap + Destroy. Qty x1<br>no replace | SK 12/04/11 | [signature] 12/04/11 | S QS7042 12/04/11 | S 12/04/11 |
| | | | | | | | | |

**NOTE:** Date & initial all entries

**Work Order ID 82336** *82336*



*March-28-12 4:05:24 PM*

**Item ID:** D2858-2 **Accept** *N900040100* **Setup Start** *NS1*

**Revision ID:**

**Item Name:** Hinge Bracket **Stop** *NS2*

**Start Date:** 28/03/2012 **Start Qty:** 24.00 *24*

**Required Date:** 11/04/2012 **Req'd Qty:** 24.00 *24*

**Cust Item ID:**

**Customer:**

**Reference:**

**Approvals:** **Process Plan:** ______ **Date:** ______ **Tooling:** ______ **Date:** ______ **Run Start** *NR1*

**QC:** ______ **Date:** ______ **SPC (Y/N):** ______ **Date:** ______ **Stop** *NR2*

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|---|---|---|---|---|---|---|---|---|---|
| 130 *130* QC Quality Control | QC8- Inspect parts - second check | 0.00 | ark 12/04/11 | | | 23 | ø | | |
| | Memo | 0.00 | | | | | | | |
| 140 *140* HandFinish Hand Finishing | Chemical Conversion Coat per QSI005 4.1 | 0.00 | | | | 23 | ø | | BK 12-4-12 |
| | Memo | 0.00 | | | | | | | |
| 150 *150* Powdercoat Powder Coating | White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum | 0.00 | | | | 23X | ø | | M 12/04/12 |
| | Memo START TIME: 1:10 FINISH TIME: 1:40 | 0.00 OVEN TEMPERATURE: 320°F | | | | | | | |

M120222

Dart Aerospace Ltd

| W/O: | WORK ORDER CHANGES | | | | | | |
|---|---|---|---|---|---|---|---|
| **DATE** | **STEP** | **PROCEDURE CHANGE** | **By** | **Date** | **Qty** | **Approval** Chief Eng / Prod Mgr | **Approval** QC Inspector |
| | | | | | | | |
| | | | | | | | |

**Part No:** ____________ **PAR #:** ______ **Fault Category:** ____________ **NCR:** Yes No **DQA:** _____ **Date:** ________

**Resolution:** ____________ **Disposition:** ____________ **QA: N/C Closed:** ________ **Date:** ________

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **DATE** | **STEP** | **Description of NC** Section A | **Corrective Action** Section B | | | **Verification** Section C | **Approval** Chief Eng | **Approval** QC Inspector |
| | | | **Initial** Chief Eng | **Action Description** Chief Eng | **Sign & Date** | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**NOTE:** Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

**Work Order ID 82336**

*March-28-12 4:05:24 PM*

*82336*

| | | | | | |
|---|---|---|---|---|---|
| **Item ID:** | D2858-2 | | **Accept** | *N900040100* | **Setup** **Start** *NS1* |
| **Revision ID:** | | | | | |
| **Item Name:** | Hinge Bracket | | | | **Stop** *NS2* |
| **Start Date:** | 28/03/2012 | **Start Qty:** 24.00 | *24* | **Cust Item ID:** | |
| **Required Date:** | 11/04/2012 | **Req'd Qty:** 24.00 | *24* | **Customer:** | |
| **Reference:** | | | | | |

**Approvals:** **Process Plan:** ______ **Date:** ______ **Tooling:** ______ **Date:** ______ **Run** **Start** *NR1*

**QC:** ______ **Date:** ______ **SPC (Y/N):** ______ **Date:** ______ **Stop** *NR2*

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|---|---|---|---|---|---|---|---|---|---|
| 160 *160* QC Quality Control | QC3- Inspect Part Finish<br>**Memo** | 0.00<br>0.00 | | | | 23 x | ∅ | | [signature] 12/04/12 |
| 170 *170* Packaging Packaging | Identify as per dwg & Stock Location: ST 19<br>**Memo** | 0.00<br>0.00 | | | | 23x | | | SP 12-04-13. |
| 180 *180* QC Quality Control | QC21- Final Inspection - Work Order Release<br>**Memo** | 0.00<br>0.00 | | | | 12/4/17 | | | [signature] |

RC 02-01-14

Dart Aerospace Ltd

| W/O: | WORK ORDER CHANGES | | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

**Part No:** ____________ **PAR #:** ______ **Fault Category:** ____________ **NCR:** Yes No **DQA:** _____ **Date:** ________

**Resolution:** ____________ **Disposition:** ____________ **QA: N/C Closed:** ________ **Date:** ________

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**NOTE:** Date & initial all entries

# Picklist Print

*March-28-12 4:05:28 PM*



**Work Order ID:** 82336 *82336*

**Parent Item:** D2858-2 *D2858-2*

**Parent Item Name:** Hinge Bracket

**Start Date:** 28/03/2012 **Required Date:** 11/04/2012

**Start Qty:** 24.00 **Required Qty:** 24.00

**Comments:** IPP C00.06.22Removed P/O for powder coatEC

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M6061T6B1.500X01.250 | | Purchased | No | | | 110 | f | 10.8170 | 0.163 | 4.117895 | | | |

*M6061T6B1.500X01.250*
6061-T6 Bar 1.50 x 1.25

** PO 12/04/07

| Location | Loc Qty | Loc Code | |
|---|---|---|---|
| MAT003 | 10.817 | | |
| 118071 | 0.112 | | |
| 119513 | 10.705 | | 4.12 |

Dart Aerospace Ltd

| W/O: | | WORK ORDER CHANGES | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

**Part No:** ____________________ **PAR #:** _______ **Fault Category:** __________________ **NCR:** Yes No **DQA:** _____ **Date:** _________

**Resolution:** ____________________ **Disposition:** ____________________ **QA: N/C Closed:** __________ **Date:** _________

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Corrective Action Section B | | | | | |
| DATE | STEP | Description of NC Section A | Initial Chief Eng | Action Description Chief Eng | Sign & Date | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**NOTE:** Date & initial all entries

| DART AEROSPACE LTD | Work Order: | 82336 |
|---|---|---|
| | | |
| Description: Hinge Bracket | Part Number: | D2858-2 |
| | | |
| Inspection Dwg: D2858 Rev: C | | Page 1 of 1 |

## FIRST ARTICLE INSPECTION CHECKLIST

| Drawing Dimension | Tolerance | Actual Dimension | Accept | Reject | Method of Inspection | Comments |
|---|---|---|---|---|---|---|
| Ø0.171 | +0.005/-0.000 | .174 | ✓ | | Vern | JL |
| Ø0.400 | +0.005/-0.000 | .402 | ✓ | | " | |
| R0.125 | +/-0.010 | .125 | ✓ | | | |
| 0.328 | +/-0.010 | .328 | ✓ | | " | |
| 0.820 | +/-0.005 | .820 | ✓ | | " | |
| 1.476 | +/-0.010 | 1.476 | ✓ | | " | |
| 0.342 | +/-0.010 | .345 | ✓ | | " | |
| 0.875 | +/-0.010 | .875 | ✓ | | " | |
| 1.56 | +/-0.030 | 1.565 | ✓ | | " | |
| 0.147 | +/-0.010 | .150 | ✓ | | " | |
| 0.717 | +/-0.010 | .718 | ✓ | | " | |
| 0.697 | +/-0.010 | .697 | ✓ | | " | |
| 0.229 | +/-0.010 | .230 | ✓ | | " | |
| R0.125 | +/-0.010 | .125 | ✓ | | | |
| R0.063 | +/-0.010 | .063 | ✓ | | | |
| 0.063 | +/-0.010 | .064 | ✓ | | " | |
| 0.126 | +/-0.010 | .128 | ✓ | | " | |
| 0.630 | +/-0.010 | .631 | ✓ | | " | |
| Ø0.354 | +/-0.010 | .354 | ✓ | | " | |
| 0.965 | +/-0.010 | .969 | ✓ | | " | |
| Ø0.166 | +0.005/-0.000 | .166 | ✓ | | " | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

| Measured by: | JL | Audited by: | [signature] | Preliminary Approval: | |
|---|---|---|---|---|---|
| Date: | 12/04/11 | Date: | 12/04/11 | Date: | |

| Rev | Date | Change | Revised by | Approved |
|---|---|---|---|---|
| A | 04.11.11 | New Issue | KJ/JLM | [signature] |
| B | 11.11.07 | Dwg Rev updated | KJ | [signature] |

Dart Aerospace Ltd

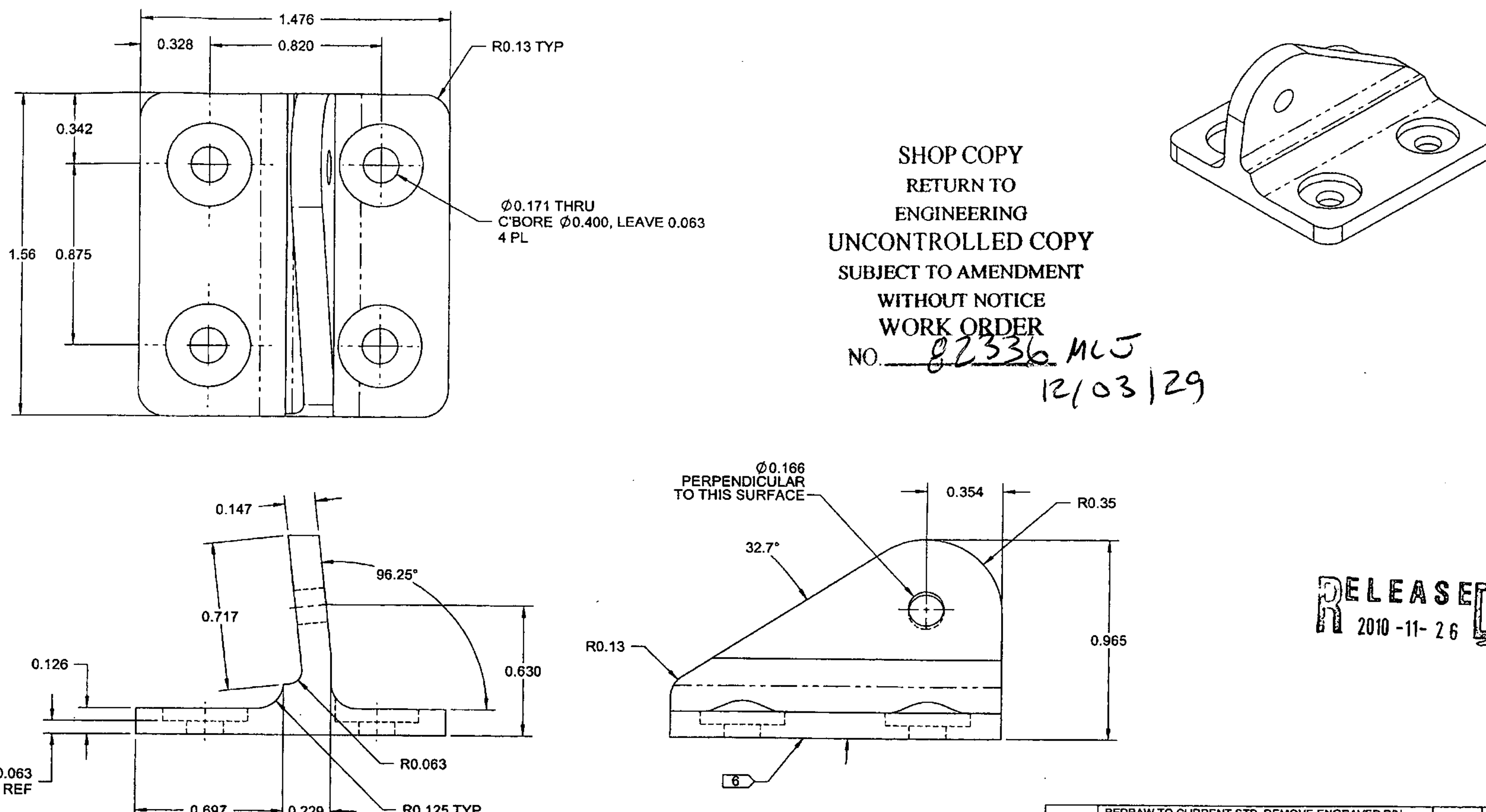
| W/O: | | WORK ORDER CHANGES | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

**Part No:** ____________________ **PAR #:** _______ **Fault Category:** ________________ **NCR:** Yes No **DQA:** _____ **Date:** _________

**Resolution:** ___________________ **Disposition:** ____________________ **QA: N/C Closed:** __________ **Date:** _________

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**NOTE:** Date & initial all entries




SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 82336 MLJ
12/03/29

RELEASED
2010-11-26

**D2858-1 HINGE BRACKET**

NOTES:
1) MATERIAL: 6061-T6 ALUMINUM PER QQ-A-225/8 OR QQ-A-200/8 OR ASTM B211 OR ASTM B221
REF DART SPEC M6061T6B
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
(C) 6) IDENTIFICATION: DART P/N "D2858-1" PER DART QSI 044 6.1
7) WEIGHT: 0.04 lbs

| REV. | DESCRIPTION | BY | DATE |
|---|---|---|---|
| C | REDRAW TO CURRENT STD, REMOVE ENGRAVED P/N, IDENT. NOW W/ MARKER (A8-1,A8-2), REF PAR 10-040 | CP | 10.10.12 |
| B | 0.717 WAS 0.667, 1.56 WAS 1.559 | KE | 99.02.28 |
| A | NEW ISSUE | KE | 98.12.14 |

| | | |
|---|---|---|
| DESIGN | KE | DART AEROSPACE LTD<br>HAWKESBURY, ONTARIO, CANADA |
| DRAWN | | DRAWING NO. D2858 — REV. C — SHEET 1 OF 2 |
| CHECKED | | |
| MFG. APPR. | | |
| APPROVED | | TITLE HINGE BRACKET — SCALE NTS |
| DE APPR. | | |
| DATE | 10.10.12 | |

Dart Aerospace Ltd

| W/O: | | WORK ORDER CHANGES | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

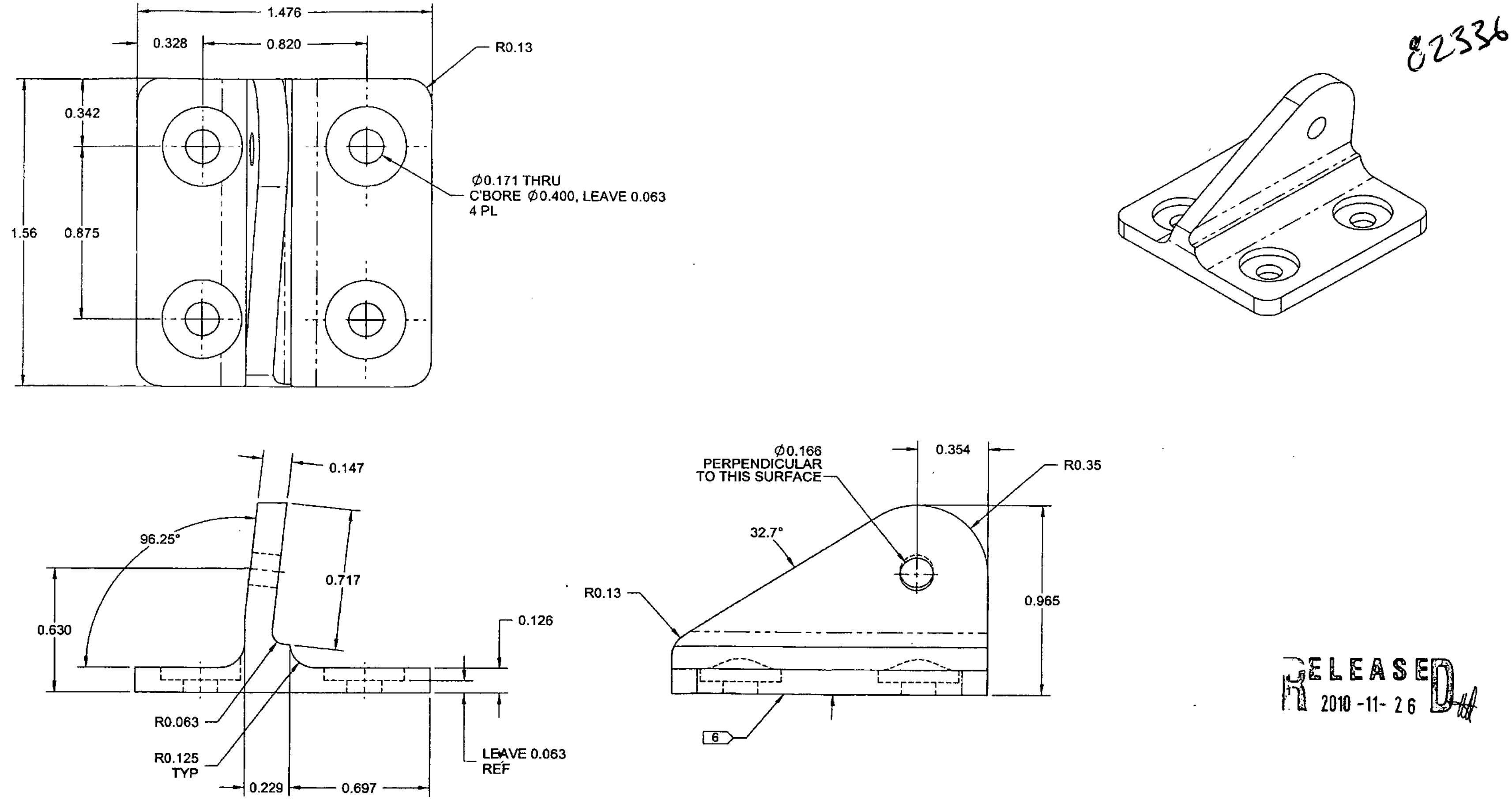
**Part No:** ____________ **PAR #:** ______ **Fault Category:** ____________ **NCR:** Yes No **DQA:** _____ **Date:** ________

**Resolution:** ____________ **Disposition:** ____________ **QA: N/C Closed:** ________ **Date:** ________

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**NOTE:** Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE




82336

RELEASED 2010-11-26

**D2858-2 HINGE BRACKET**

NOTES:
1) MATERIAL: 6061-T6 ALUMINUM PER QQ-A-225/8 OR QQ-A-200/8 OR ASTM B211 OR ASTM B221
REF DART SPEC M6061T6B
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
(C) 6) IDENTIFICATION: DART P/N "D2858-2" PER DART QSI 044 6.1
7) WEIGHT: 0.04 lbs

| DESIGN | KE |
|---|---|
| DRAWN | [signature] |
| CHECKED | [signature] |
| MFG. APPR. | [signature] |
| APPROVED | [signature] |
| DE APPR. | [signature] |
| DATE | 10.10.12 |

**DART AEROSPACE LTD**
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. D2858 — REV. C — SHEET 2 OF 2

TITLE: HINGE BRACKET — SCALE NTS

Dart Aerospace Ltd

| W/O: | WORK ORDER CHANGES | | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: ____________ PAR #: ______ Fault Category: ____________ NCR: Yes No DQA: _____ Date: ________

Resolution: ____________ Disposition: ____________ QA: N/C Closed: ________ Date: ________

| NCR: | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
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**NOTE:** Date & initial all entries